Santa Clara University School of Law

Santa Clara Law Review

Volume 33 | Number 2 Article 7

1-1-1993

Ensuring the Future of California Fisheries: A Comprehensive State Policy for the Protection of Native Fishes During Water Transfers

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ENSURING THE FUTURE OF CALIFORNIA FISHERIES: A COMPREHENSIVE STATE POLICY FOR THE PROTECTION OF NATIVE FISHES DURING WATER TRANSFERS

I. INTRODUCTION

A three-inch fish is revolutionizing California water policy, politics, and procedure. The debate over whether or not to list the Delta smelt[1] as an endangered or threatened species under federal and state law[2] has caused environmentalists, agricultural interests, and municipalities to turn their competition over precious water resources into a battle over the way water should be managed in California.[3] The environmentalists are calling for radical change in the way water is allocated in California,[4] while municipalities and business interests worry about maintaining the economic benefits of continued growth in California with a shrinking water supply.[5] In the interim, farmers are frantically fighting to maintain control over their current allocations.[6] Historically, farmers consumed approxi-

1. The Delta smelt is a tiny finger-length fish which "is endemic to the upper Sacramento-San Joaquin estuary." Peter B. Moyle et al., Life History and Status of Delta Smelt in the Sacramento-San Joaquin Estuary, California (Jan. 1991) (unpublished manuscript, on file at the Univ. of Cal., Davis, Dep't of Wildlife and Fisheries Biology).

2. The Delta smelt was listed as "threatened" under the Federal Endangered Species Act, 16 U.S.C. §§ 1531-1543 (1982), and is still being considered under the California Endangered Species Act, CAL. FISH & GAME CODE, ch. 1.5, §§ 2050-2098.

3. There are predictions "that the smelt [will] force a new equilibrium in California, elevating protection of the Delta above the desires of farmers for more water." Bert Robinson, *Threatened Fish Enters State Water Battlefield*, SAN JOSE MERCURY NEWS, Sept. 28, 1991, at A4. Representative George Miller, head of the House Interior Committee, claims: "We're not going to be able to destroy the Delta under federal law. We're going to have to make a total re-evaluation of our water policy." *Id.* But opponents to the listing of the Delta smelt claim that "[f]or two decades, environmentalists have managed to stymie new water development. Now, the smelt may finally put them in position to reverse some of the worst ecological consequences of the existing projects by keeping more fresh water in the Delta instead of shipping it south." Elliot Diringer, *Delta Smelt Friends Cry Foul*, SAN FRANCISCO CHRON., Sept. 28, 1991, at A1, A18.

4. Charles McCoy, *Little Fish May Put California In Hot Water*, WALL ST. J., July 10, 1991, at B1.

5. *See generally* STATE WATER RESOURCES CONTROL BD., WATER RIGHT DECISION 1630, 4 (Dec. 1992) (Draft) [hereinafter SWRCB]. *See also*, Elliot Diringer, *U.S. Reportedly Ready to Help Delta's Smelt*, SAN FRANCISCO CHRON., July 13, 1991, at A1.

6. McCoy, *supra* note 4, at B4.

mately eighty percent of the water in California, a majority of which was drawn from estuaries of the Sacramento-San Joaquin Delta, home of the Delta smelt.[7] Saving native California fish like the smelt, however, may result in reducing water distribution to farmers which could prove to be detrimental to the already shaky California economy.[8]

Years of drought contributed to the shortage of water in California;[9] but, as will be discussed in this comment, methods of water policy and management in California do not adequately provide for the escalating demand for water,[10] possibly due to public and judicial policies which need to be re-evaluated according to present water distribution needs. The process of listing the Delta smelt as a threatened or endangered species[11] is forcing state and federal legislators to take a second look at the way water is allocated in California in an effort to heal the battered environment.[12]

The tiny Delta smelt, a fish no larger than a pencil stub, has inadvertently become a vehicle for addressing how California's water system should be managed, and is likely to provoke a fierce legal battle now that the smelt is listed as a threatened species.[13] The listing might result in the redirection of water from agriculture and municipalities, to fish. It is estimated that the listing will result in a reduction of diversions, 1.5 million acre-feet[14] of water a year, from

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> [A]ll of the state's powerful farm lobbying groups oppose any federal protection for the smelt, as do water bureaucrats from the state and the federal Bureau of Reclamation, which also uses the delta system as a source of water. Opponents of protection generally say that more study of the smelt's condition is needed and that protecting the Delta smelt would disrupt water supplies and damage agriculture.

Id. at B4.

7. *Id.* at B1.

8. *Id.*

9. *See generally* Timothy Egan, *West Confronts a Stranger: A Wet, Snowy, Icy Winter*, N.Y. TIMES, Jan. 18, 1993, at A1, A12; Mary Smaragdis, *Unsettled Weather Stirs Up Central USA*, USA TODAY, Nov. 18, 1992, at 14A; Michael Meyers, *California Drought Watch; A Monthly Look at the Water Shortage*, L.A. TIMES, Apr. 30, 1992, at A3; Charles Petit, *New Report on Damage From the Drought*, SAN FRANCISCO CHRON., Aug. 2, 1991, at A21.

10. Dennis Pfaff, *Water Users Ready Attack on Endangered Species Act*, L.A. DAILY J., Apr. 5, 1991, § II, at 1.

11. *See supra* note 2 and accompanying text.

12. *See* SWRCB, *supra* note 5. Although important changes are in the making, a long term policy is necessary to cast aside uncertainties for farmers over water distribution and to ensure enough water for the environment.

13. Charles McCoy, *U.S. to Propose Listing Smelt as "Threatened,"* WALL ST. J., Sept. 27, 1991, at A2; *see also*, *supra* note 2 and accompanying text.

14. An acre-foot is "the volume (as of irrigation water) that would cover one acre to a

the Sacramento-San Joaquin Bay Delta, enough water to supply over three million families for a year.[15] This comment will not address whether the Delta smelt should have been listed,[16] or discuss if it would be possible to soften the impact that the listing of the smelt will have on millions of Californians.[17] Instead, this comment discusses how to prevent the submission of proposals to list a fish in the first place, and proposes that the dilemma over whether to list a fish like the Delta smelt can be avoided if California establishes a policy for the protection of its native fishes. This comment suggests that the cumulative effect of water transfers[18] and Delta diversions (hereinafter water transfers)[19] from the Sacramento-San Joaquin Delta, along with the past seven-year drought, have exacerbated the natural water quality problems particular to the Sacramento-San Joaquin Bay Delta.[20] To remedy this situation, this comment suggests that

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depth of one foot." WEBSTER'S THIRD NEW INT'L DICTIONARY 19 (1986).

15. Pfaff, *supra* note 10, at 1.

16. This comment will not address whether or not the Delta smelt should have been listed as a threatened species because there is no easy solution to the problems involving the Delta smelt. If the smelt is listed as a threatened species then "efforts to protect the tiny fish would likely mean less water diverted from the Sacramento-San Joaquin River Delta, and that would inflict chronic water shortages statewide." Jim Mayer, *Water Industry Rips Federal Efforts to Protect Delta Smelt*, SACRAMENTO BEE, Jan. 9, 1992, at B1. If the smelt is not listed, biologists claim the smelt will be "exterminated within two or three years." Charles McCoy, *Lobbyists' Smelt-and-Bird Campaign Is Assault Against Endangered Species Act Itself, Some Say*, WALL ST. J., Aug. 29, 1991, at A8. The complete extermination of the Delta smelt will impact the economy, ecosystems, genetic heritage, and the aesthetic beauty of California. Peter B. Moyle & Michael D. Morford, Salmon, Steelhead, Smelt, & Sturgeon in California: Endangered Resources 6 (Jan. 1991) (unpublished report, on file with the Univ. of Cal., Davis, Dep't of Wildlife and Fisheries Biology); *see infra* notes 23-26 and accompanying text.

17. Bert Robinson, *"Threatened" Fish Enters State Water Battlefield*, SAN JOSE MERCURY NEWS, Sept. 28, 1991, at A4.

18. A water transfer is the "selling or exchanging water or water rights among individuals or agencies." California Dep't of Water Resources, A Guide to Water Transfers in California 1 (June 1989) (draft available from the California Dep't of Water Resources).

19. A Delta diversion is different from a water transfer in that it involves waters diverted based on the user's water right, like an appropriative license. The water will be used according to the allowed use under the license and thus is not technically called a water transfer. If the water was given to a party not entitled to receive it under the license, then it would be called a water transfer because it has moved from one appropriative holder to another. Both water transfers and Delta diversions impact the environment because water is being moved to or used in areas other than the point of origin. Interview with David Sandino, Attorney, California Department of Water Resources, Office of Chief Counsel (Feb. 28, 1993). Thus, for purposes of brevity, this comment will refer to both as "water transfers."

20. SWRCB, *supra* note 5, at 1. Governor Pete Wilson officially declared the drought over "because the reservoirs were expected to reach 90 percent of average for the month by April. [But] '[t]he end of rationing does not mean the end of conservation.' " Robert Reinhold, *Drought Ends, Having Altered Political Landscape*, N.Y. TIMES, Feb. 25, 1993, at A1.

California Water Code sections 109 and 475 be amended so that it is the established policy of California to make protection of native fishes the primary consideration in all water transfer decisions.[21]

California water users are faced with two conflicting problems. First, fish like the Delta smelt may be listed as threatened or endangered species, which may result in a reduction of fresh water supply to consumers. Second, if fish like the smelt are not listed as threatened or endangered, then California may lose many of its native fishes,[22] precious resources which impact the economy,[23] ecosystems,[24] genetic heritage,[25] and aesthetic beauty of California.[26] There are several other native California fishes that are in severe decline and may soon join the Delta smelt as species needing special protection.[27] If all of these fishes were to become extinct tomorrow, "no fisheries or ecosystems would collapse due to their absence."[28] However, there are several compelling reasons, besides the preservation of these species and their habitat, why these fishes need to be protected before a listing is ever considered.[29]

This comment uses the Delta smelt as an illustration of a current problem for biologists, municipalities, and law makers in California: how to balance the interests of environmentalists, farmers, and municipalities without damaging fisheries, yet continuing to meet state water needs. This comment will explore how current California water law, specifically regulations dealing with water transfers and exports, contributed to the demise of the smelt. This comment will discuss how water quality in the Delta has declined as a

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21. *See* discussion *infra* notes 254-66 and accompanying text.

22. "Fishes" refers to *different* species of fish; whereas, the word "fish" is the plural form of *one* fish species. WEBSTER'S NEW WORLD DICTIONARY 527 (1970).

23. Fall run chinook salmon, Winter steelhead, and White sturgeon are "the mainstays of commercial and sport fisheries." Moyle & Morford, *supra* note 16, at 6.

24. "The fishes are the most noticeable components of the ecosystems that support them and their decline reflects the deterioration of these [estuarine] ecosystems . . . . [T]he health of these species is closely tied with the health of some of the most important aquatic ecosystems in California." *Id.*

25. California native fishes "were created through thousands of years of evolution and their genetic heritage cannot be readily recreated or even maintained in hatcheries. They are valuable not only because they can survive in the increasingly stressed habitats of California but [also] because they may be needed to help maintain fisheries in more northern areas." *Id.*

26. "We want them to be around so we and our descendants can catch glimpses of them in natural settings." *Id.*

27. The twelve species are: Spring run salmon, Coho salmon, Pink salmon, Chum salmon, Summer steelhead, Southern steelhead, Coastal cutthroat trout, Green sturgeon, Eulachon, Delta smelt. The Longfin smelt and the Splitail have been petitioned for listing. *Id.*

28. *Id.*

29. *See supra* notes 23-26 and accompanying text.

result of these transfers and how fish populations were consequently affected. Fish like the Delta smelt were affected to the point of becoming listed as a threatened or endangered species, and this comment suggests that the time and expense of engaging in a listing is enormous. It is a process that should be reserved as a last resort to save a species.

In the case of the Delta smelt, a uniform state policy that considers the fresh water needs of the fish while providing human populations with adequate water supplies might keep fish populations in equilibrium without having to resort to expensive administrative adjudications like that conducted by the State Water Resources Control Board (hereinafter SWRCB).[30] California needs a long-term policy to guide its water allocation methods.[31] One allocation method, short-term water transfers, is an example of a method of water allocation which is not governed by long-term policy.

This comment focuses on the permit process for water transfers in California and how state policies guide agencies in making these critical water allocation decisions.[32] Obviously, planning for the future is a key issue, but there is no uniform state policy to guide the state agencies involved in the water transfer permitting process. Thus, the needs of fish, animals, and people are not adequately considered when water transfer permits are promulgated.[33]

II. BACKGROUND

A. *California Water*

1. *The Debate Over State Water Policy*

California's half-century-old system of managing water resources is a major source of tension between farmers and environmental interest groups.[34] This comment suggests that people who want to survive the business world of the 1990's must discard the old ways of the 1940's, which means the previously neglected environment must be a major consideration when shaping state and federal

30. *See* SWRCB, *supra* note 5. The Bay-Delta Water hearings commenced at the beginning of fiscal year 1986-87 and cost approximately 1.4 million per year. Interview with Dave Beringer, Program Manager for SWRCB for Bay-Delta Program (Jan. 1993).

31. SWRCB, *supra* note 5.

32. *See* discussion *infra* notes part IV.C.

33. *See* discussion *infra* notes 147-78 and accompanying text, and notes 254-66 and accompanying text.

34. Scott Thurm, *Squeezing California's Agricultural Water Users*, SAN JOSE MERCURY NEWS, Sept. 5, 1991, at A1.

water policy.

Federal officials recently instigated new regulations for the Central Valley Project (hereinafter CVP) via the Central Valley Project Improvement Act to protect dwindling fish populations.[35] This CVP reform act gives recognition to fish and wildlife protection as a legitimate purpose of the federal water project, and 800,000 acre-feet of existing supplies is committed for this purpose. Although not a significant enough amount of water to provide for all the environmental projects listed in the bill, the 800,000 acre-feet will mean less water for agriculture.[36] Farmers continue to resist allegations that agriculture is responsible for environmental declines in fish and wildlife populations, and favor proposals calling for less-radical changes in the operation of the federal and state water projects.[37] The business community in Northern California is concerned that the economy will be stunted without additional water supplies and "[i]t has now become obvious to the business community . . . that our continued growth and prosperity depends on our doing something about water."[38] This comment focuses on water allocation in the Sacramento-San Joaquin Delta (hereinafter Delta).

Since the early 1800's, conflicts over water rights have perpetuated water wars in areas where land development is intense and water resources are scarce.[39] Conflict often results when domestic, industrial, and agricultural needs outstrip a limited water supply.[40] A classic example of a "water war" is the controversy between agricultural, business, municipal, and environmental groups in California, which has raged over the policy governing water allocation for more than half of a century.[41] In particular, most California water

35. The Central Valley Project Improvement Act, Pub. L No. 102-575, 106 Stat. 4600 (October 30, 1992), overhauls the Central Valley water project and reduces agricultural subsidies.

36. The Miller bill gives farmers less water and the environment more. One of the goals of the CVP legislation is to double the population of salmon, striped bass, sturgeon and American shad. The CVP previously favored a guaranteed water supply to farmers; now, the Act puts wildlife and animal protection on an equal level with supplying farmers and municipalities.

37. Thurm, *supra* note 34, at A1. Although farmers realize that severe problems exist which have perpetuated the downfall of the San Francisco Bay, farmers "deny agriculture is solely responsible. Farm groups have proposed their own, less-sweeping changes in operation of the federal water project, but they drew poor reviews from [Representative] Miller and environmentalists." *Id.* at A8.

38. *Id.*

39. JUGEN SCHMANDT ET AL., STATE WATER POLICIES: A STUDY OF SIX STATES 58 (1988).

40. *Id.*

41. *Id.* at 58-65.

supply projects have been the subject of great debate among these groups.[42] In addition:

> [C]ompetition for western water has been growing as strong demands emerge in other sectors as well. The energy sector is perceived as a new rival to traditional water users . . . . Recreational demand for water has grown along with population growth, and the value placed on instream flow for fishing, swimming, and boating has increased accordingly.[43]

The competition between farmers and environmentalists is fierce, since irrigated agriculture uses more water than any other activity in the West.[44] Environmentalists argue that agricultural use of water is highly inefficient, and attribute part of the water shortage problem to the lack of a strong state policy to encourage greater water conservation among farmers.[45] Farmers and other water purveyors assert they are overtaxed,[46] maintaining: "No water, no farming. No farming, no food."[47] An example of a sparring match over water is the debate involving the Delta smelt, which has given rise to a three-way battle for water between environmentalists, farmers, and city dwellers.[48]

2. *The Delta Smelt*

The controversy in California over the proposed listing of the Delta smelt as a threatened species under the Federal Endangered Species Act (hereinafter ESA) and the proposed listing under the California Endangered Species Act (hereinafter CESA),[49] is a symptom of an overall state water problem—how to manage a finite water system so that it will meet the needs of all water users, including wildlife. Although biologists cannot agree whether the Delta smelt is

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42. *Id.* at 60.

43. MOHAMED T. EL-ASHRY & DIANA C. GIBBONS, *New Water Policies for the West, in* WATER AND ARID LAND OF THE WESTERN UNITED STATES 377 (MOHAMED T. EL-ASHRY & DIANA C. GIBBONS eds., 1988); *see also* HAROLD E. ROGERS & ALAN H. NICHOLS, WATER FOR CALIFORNIA: PLANNING, LAW AND PRACTICE, FINANCE 80-81 (1967).

44. *See* EL-ASHRY & GIBBONS, *supra* note 43, at 377. *See supra* text accompanying note 7.

45. *See* EL-ASHRY & GIBBONS, *supra* note 43, at 377. *But see* Agricultural Water Conservation Management Act of 1992, CAL WATER CODE §§ 10520-10523 (West 1992).

46. Elliot Diringer, *New State Water Plan Revealed-Cities and Farms Both Lose*, SAN FRANCISCO CHRON., Dec. 11, 1992, at A1.

47. Reinhold, *supra* note 20, at A7.

48. Larry Dale, SAN FRANCISCO CHRON., Oct. 23, 1991, at A21.

49. *See infra* note 2 and accompanying text.

actually threatened,[50] the proposal to list the Delta smelt has caused affected water users to launch an attack against the ESA. "Powerful forces are already arranging themselves on either side of the debate, with combatants on both sides predicting a battle that could dwarf the recent Pacific Northwest war over the spotted owl."[51]

Saving the Delta smelt may have an enormous impact on how water is managed throughout the entire state of California.[52] The minute smelt is "adapted to living in association with the [fresh-water-saltwater] mixing zone . . . where it feeds on copepods and other zoo plankton."[53] It is neither pretty (an average silvery-blue in color), nor appetizing.[54] But it is an extremely important fish because it is an indicator species whose existence helps scientists to monitor the health of the Sacramento-San Joaquin estuary.[55] The smelt has a one-year life cycle which, combined with its confinement to the upper estuary, makes it exceptionally sensitive to changing conditions.[56] It must spawn in fresh water every year in order to survive.[57]

Because of the smelt's limited habitat range, it is "smack in the middle of the crossroads of an estimated forty percent of the fresh surface water in the state . . . . Backers of the endangered species status say more of that water needs to be released to the bay to maintain and expand the comfort zone for the fish."[58] In 1985, bi-

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50. Jim Mayer, *Water Industry Rips Federal Efforts to Protect Delta Smelt*, SACRAMENTO BEE, Jan. 9, 1992, at B1; *see also* Declaration of Dr. Charles H. Hanson in Support of Ex-parte Application for Temporary Restraining Order and Motion for Preliminary Injunction, State Water Contractors v. United States Dep't of the Interior, No. CIV. S. 91-825-EJG (1991).

51. Dennis Pfaff, *Water Users Ready Attack on Endangered Species Act*, L.A. DAILY J., Apr. 5, 1991, § II, at 1. Likewise, a similar battle was fought in the Pacific Northwest and the Columbia River Basin over whether the Columbia River Salmon should be listed under the ESA. *See* F. Lorraine Bodi, *Protecting Columbia River Salmon Under the Endangered Species Act*, 10 ENVTL. L. 349 (1980).

52. Pfaff, *supra* note 10, at 1.

53. Moyle et al., *supra* note 1, at 2.

54. Peter Moyle & Michael D. Morford, Salmon, Steelhead, Smelt & Sturgeon in California: Endangered Resources 13 (Jan. 1991) (unpublished manuscript on file at the Univ. of Cal., Davis, Dep't of Wildlife and Fisheries Biology). The Delta smelt is "no longer harvested by humans, although similar species are regarded as delicacies in other parts of the world and commercial fisheries for them did exist prior to 1900." *Id.*

55. *Id.* The decline of the Delta smelt "is a strong indication that the health of the entire estuary has deteriorated to a point where it is supporting only a fraction of its former fish populations." *Id.* at 14. Other species, like the Chinook salmon, once numbered up to 150,000, but now only 230 remain in the Sacramento River. McCoy, *supra* note 4, at B1.

56. Moyle & Morford, *supra* note 54, at 13.

57. Moyle et al., *supra* note 1, at 2.

58. Pfaff, *supra* note 10, at 1.

ologists discovered that the smelt populations "collapsed and they have remained low ever since, too low to detect whether or not they are still declining. The collapse was probably the result of increased diversion of water from the estuary, especially during their spawning season, combined with a series of drought years."[59] Although there is no precise agreement as to the cause of the decline of the smelt and whether the fish is, in fact, threatened,[60] the SWRCB found that "Delta smelt have had a variable decline to persistent low abundance levels; the 1985 population level was 80 percent lower than the 1967-1982 average population."[61] This decline is due to the reduced flow level of the Delta into the Bay resulting from upstream storage diversions and exports out of the Delta basin.[62] The basin, affected by the drought, is classified as critically dry.[63] Most important:

> [D]eclines in fish populations relate strongly to the location, method, and timing of diversions of water from and upstream of the Delta. Export pumping in the southern Delta, because of the amounts of water being pumped, the rate of pumping during the spring, and the resulting reverse flows, is a major cause of the fish population declines.[64]

While smelt supporters say there is plenty of water for both people and smelt, crusaders working to save the Delta smelt are hoping their efforts will change the way water is allocated in California.[65] "Winning protection for smelt would achieve what many environmentalists and water reformers have been attempting for years: reducing farmers' disproportionate lock on the state's water resources."[66] Although either designation of threatened or endangered "could put the smelt in a position to gum up California's mighty waterworks—potentially forcing cuts in exports from the Sacramento-San Joaquin River Delta."[67]

The decision to change the listing recommendation from "endangered" to "threatened" does not affect the decision to operate the

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59. Moyle & Morford, *supra* note 54, at 13.

60. "The smelt's numbers have plunged an estimated 90% to about 200,000 fish in the past 20 years because of heavy human use of the estuaries." McCoy, *supra* note 4, at B1.

61. SWRCB, *supra* note 5, at 29.

62. *Id.* at 27.

63. *Id.* at 29.

64. *Id.* at 30.

65. McCoy, *supra* note 13, at A2. Farmers, for example, use 80% of the water consumed in California, much of it drawn from the smelt's estuaries; much of farmers' water goes to grow subsidized, water-intensive crops such as cotton and rice. *Id.* at B1.

66. *Id.*

67. *Id.*

smelt-killing pumps. Even endangered status would not halt pumping or require other such drastic steps to avoid killing smelt.[68] The pumps are an integral part of the Sate Water Project and Central Valley Water Project's system of dams and canals,[69] all of which operate to send water to various parts of the state, providing millions of families with much needed water.

Listing the Delta smelt as only "threatened" requires additional coordination and effort by water users to seek methods of preserving the species,[70] and thus seriously affects water use and allocation decisions from the rivers where the smelt resides. Biologists believe the best way to improve Delta estuaries is to increase the freshwater flows,[71] because the recent decline in Delta smelt coincides with the increase in proportion of water diverted and the confinement of the mixing zone to a small area in the river channels. Low catches during the drought of 1976-1977 also coincide with record high proportions of water diverted. Increasing rates of diversion since the earlier drought have resulted in greater proportionate diversion during the more recent drought, so for 1988 the amount of water diverted exceeded the amount flowing out to sea.[72]

This belief may be the basis of the SWRCB's recent draft order which attempted to strike a balance among the state's competing water factions. The draft order recognized that "[a]ll of the representative parties involved in the struggle over Bay/Delta Estuary waters, be they environmentalists, irrigators, or consumers, must recognize that they can only help themselves when they help each other."[73] The SWRCB tried to impose a series of measures that would "stop the decline and begin recovery of public trust resources in the . . . Delta Estuary during an interim 5-year period while long-term standards are prepared."[74] The draft "requires measures that will cause a shift in some export pumping from the late winter, spring and summer periods which are important to public trust pro-

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68. Interview with David Sandino, Attorney, *supra* note 19.

69. "The Project was authorized by the Congress and undertaken by the Bureau of Reclamation of the Department of the Interior pursuant to the Act of August 26, 1937, 50 Stat. 844, 850." Dugan v. Rank, 372 U.S. 609, 611 (1963); *see also* United States v. Gerlach Live Stock Co., 339 U.S. 725, 728 (1950); *Dugan*, 372 U.S. at 612.

70. Bert Robinson, *'Threatened' Fish Enters State Water Battlefield*, SAN JOSE MERCURY NEWS, Sept. 28, 1991, at 4A; *see also* McCoy, *supra* note 13, at A2.

71. Larry Dale, *State Intervention Is Needed to Balance Water Supplies*, SAN FRANCISCO CHRON., Oct. 23, 1991, at A21.

72. Moyle et al., *supra* note 1, at 13.

73. SWRCB, *supra* note 5, at 5.

74. *Id.* at 1.

tection, to the late fall and early winter periods. This decision also provided short-term flow increases that will aid fish migration. It also requires steps to improve water supply reliability."[75]

B. *Federal and State Water Planning Under the ESA*

1. *What Happens When a Species Is Proposed to be Listed*

To protect "endangered" or "threatened" species, "the operation of many planned and existing water projects must pass muster" under the ESA.[76] The United States Fish and Wildlife Service is bound by the ESA to use "the best scientific and commercial data available" when making its determination whether a fish should be listed as "endangered" or "threatened."[77]

2. *What Is Suggested for the Delta Smelt*

The Delta smelt's situation is closely monitored, and "it is no secret that those closest to the Bay-Delta decision-making process—advocates for the environment, agriculture and urban water users—are locked in a three-way struggle, each seeking more water for its interests."[78] Some of the measures recommended by environmentalists involve a number of short-term and long-term actions including major institutional changes. One plan calls for reorganizing and renaming the California Department of Fish and Game in order to increase its power over the protection of all species and their habitats in the state.[79] Proponents for listing the smelt admit that "they

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75. *Id.*

76. A. Dan Tarlock, *The Endangered Species Act and Western Water Rights*, 20 LAND & WATER L. REV. 1, 2 (1985). In 1989, a proposal was made to list the smelt under CESA, but the Fish and Game Commission turned down the recommendation due to lack of information. In 1993, the California Fish and Game Commission is once again considering a petition to list the Delta smelt as a threatened or endangered species. *Fish and Game Commission on Feb. 5 Will Consider Listing Delta Smelt as an Endangered Species*, FISH & GAME NEWS, Jan. 28, 1993, 1.

77. 16 U.S.C. § 1533(b)(1)(A) (1992) and 50 C.F.R. § 424.12(b) (1990).

78. W. Don Maughan, *State Water Board Responds*, SAN FRANCISCO CHRON., Oct. 23, 1991, at A21.

79. Moyle & Morford, *supra* note 54, at 3. It is suggested that the Department should be called the Department of Wildlife Conservation. *Id.* at 16. Other radical suggestions include:

> [S]electively list species as threatened or endangered in order to focus institutional attention on major issues such as water diversion and habitat degradation[—]the first fish to list should be delta smelt and southern steelhead[;] . . . treat all hatchery produced salmon and steelhead with a visible mark and allow only marked fish to be harvested in sport and commercial fisheries until wild stocks are rebuilt[;] . . . and make protection of biodiversity a mandatory goal of

are after bigger game."[80] If they "can protect the Delta smelt—and what it seems to require is more fresh water—then [we] are protecting the system for other species as well."[81]

But, developers and farmers argue that the Delta smelt is not, in fact, a "threatened" species and they have threatened to sue if the smelt is listed.[82] Critics of the proposal "also accuse environmentalists of having a much broader agenda—in effect using the smelt as a pawn to wrest control of the state's water supplies and to protect other, as yet unlisted animals."[83] Opponents to the listing also claim that there must be valid reasons to list the Delta smelt for its own protection, and not just to stop water transfers from the Delta.[84] The proposal to list the smelt as a threatened species was made September 27, 1991. "Under federal law, the Fish and Wildlife Service's proposal to list the smelt as 'threatened' must be followed by a year of public comment and review."[85] The decision on whether or not to list the smelt should have been made in the Fall of 1992; instead, the decision to list the smelt as threatened was made by federal officials in the winter of 1993 due to the presidential election.[86]

While the process of setting new standards and "reviewing and amending water rights will continue,"[87] there are long-term measures which can be implemented that may be supported by agribusiness and environmentalist interests alike. These measures include allowing the state and federal agencies that currently manage water resources to develop and implement plans that will increase protection over water systems and public trust resources.[88] As many anad-

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every agency whose activities affect public land or the use of private lands that affect public trust resources.

Moyle & Morford, *supra* note 54, at 2, 3; *see also* S. T. HARDING, WATER IN CALIFORNIA 160 (1960) (explaining the current role the Department of Fish and Game plays in the approval process of water projects).

80. Pfaff, *supra* note 10, at 1.

81. *Id.*

82. *Id.* Gregory Wilkinson, a Riverside, California, partner at Best, Best & Krieger representing several State Water Project water consumers, stated that "if the smelt is given endangered status his clients may file the first-ever lawsuit to overturn such a designation. While the Endangered Species Act includes clear authority to challenge a decision not to list a species or to delay a listing, it is less clear whether a decision to declare a species endangered can be challenged." *Id.*

83. *Id.*

84. *Id.*

85. Robinson, *supra* note 70.

86. Bert Robinson, *Delta Fish To Get Federal Protection*, SAN JOSE MERCURY NEWS, March 4, 1993, at A5.

87. Maughan, *supra* note 78, at A21.

88. Moyle & Morford, *supra* note 54, at 2.

romous[89] fish are in severe decline,[90] it is recognized by environmentalists that short-term measures, such as developing and implementing recovery plans for all twelve native California fishes,[91] must be implemented before the debate to list a species is ever reached.

C. *California Water Management and Marketing*

The SWRCB was created to administer California water resources.[92] "The objectives and the responsibilities of the Water Resources Control Board and the nine regional water quality control boards are to preserve and enhance the quality of California's water resources and to assure their conservation and effective utilization."[93] The SWRCB has two major responsibilities: (1) the administration of the state's water rights system; and (2) the implementation of the state's water quality program.[94] One of the functions of the SWRCB in the administration of the state's water rights system is to approve applications for water transfers.[95] Although voluntary water transfers, the buying and selling of water or water rights among various entities, are seen by many interest groups as an important means of achieving better water management in California, the decline in the Delta smelt populations has been exacerbated by the increase in voluntary water transfers. These diversions serve to take fresh water supplies away from the smelt habitat.[96]

The SWRCB approves the point of diversion, place of use, or purpose of use from that specified in an appropriative water right.[97] The SWRCB approves applications for transfers only if the applicant meets the requirements in the California Water Code.[98] In addition, numerous other California Water Code provisions affect water transfers[99] along with other federal and state agencies.[100] Two

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89. "Anadromous" is defined as "ascending rivers from the sea for breeding." WEBSTER'S NINTH NEW COLLEGIATE DICTIONARY 82 (1983).

90. Moyle & Morford, *supra* note 54, at 2.

91. *See supra* notes 23-26 and accompanying text.

92. CAL. WATER CODE § 174 (West 1971 & Supp. 1993).

93. DAN F. HENKE, CALIFORNIA LAW GUIDE 314 (2d ed. 1976).

94. CAL. WATER CODE. §§ 1000-6000 (West 1971 & Supp. 1993).

95. AUTHORITY FOR ENVIRONMENTAL ANALYSIS OF WATER TRANSFERS, NOTICE OF PREPARATION FOR THE PROGRAM ENVIRONMENTAL IMPACT REPORT ON WATER TRANSFERS USING THE DELTA 2-1 (Sept. 11, 1991).

96. Moyle et al., *supra* note 1, at 13.

97. AUTHORITY FOR ENVIRONMENTAL ANALYSIS OF WATER TRANSFERS, *supra* note 95, at 2-1.

98. CAL. WATER CODE §§ 1425-1735 (West 1971 & Supp. 1993).

99. CAL. WATER CODE §§ 109, 383, 387, 475, 480, 1011(a)-(b), 1215-1219.5, 1220-

of the code provisions declare that all state agencies are to do everything in their power to encourage voluntary water transfers.[101] There is also an environmental review process for water transfers which involve the California Environmental Quality Act[102] and the National Environmental Policy Act,[103] ESA, and CESA.

1. *Nonstructural Alternatives to Water Management*

The Delta facilities were planned for several purposes: Transferring water across the Delta to pumping plants; salvaging water; protecting the Delta from damage resulting from salinity intrusion and flooding; and providing recreation and transportation benefits.[104] However, in recent years, California water planners have relied less on building these structures to alleviate water supply problems.[105] The Department of Water Resources (hereinafter DWR) promotes nonstructural alternatives, such as water conservation,[106] waste water reclamation,[107] ground water banking,[108] increased risk acceptance,[109] interconnection,[110] and water transfers, in their battle against nature to provide Californians with more water.[111] This comment will concentrate on water transfers and their potential impact on fish like the Delta smelt.

a. *Water Transfers*

There are at least five types of water transfers: Water exchange,[112] water sales,[113] water ranching,[114] water salvage,[115] and

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1221, 1706, 1810-1814, 10008-10010, 11960-11965 (West 1971 & Supp. 1993).

100. *See* California Dep't of Water Resources, A Guide to Water Transfers in California 11-14 (June 1989) (draft available from the California Dep't of Water Resources).

101. CAL. WATER CODE §§ 109 and 475 (West 1971 & Supp. 1993); *see also* Letter from John Diaz, Chief, Division of Water Quality and Water Rights, to potential 1991 transferrors 1 (Mar. 19, 1991).

102. CAL. PUB. RES. § 21000 (West 1986).

103. National Environmental Policy Act, 42 U.S.C. § 4321 (1969).

104. *See generally* ROGERS & NICHOLS, *supra* note 43.

105. California Dep't of Water Resources, *supra* note 18, at 1.

106. Water conservation is when less water is used for the same activities. California Dep't. of Water Resources, *supra* note 18, at 1.

107. Wastewater reclamation is recycling water. *Id.*

108. Ground water banking is underground water storage during wet years for use during dry years. *Id.*

109. Increased risk acceptance is preparing for an increased frequency of water shortages, so that expensive water storage facilities do not have to be built. *Id.*

110. Interconnections involve connecting various water systems owned by different entities to increase water flow during dry years. *Id.*

111. *Id.*

112. A water exchange is "[a] traditional arrangement whereby one entity obtains rights

water sharing.[116] These five types are classified into two broad categories: (1) interim or temporary use of water (hereinafter short-term) by an entity other than the water rights holder; and (2) permanent or long-term transfers of water rights.[117] Short-term transfers usually take place when there are temporary water shortages or droughts.[118] Long-term transfers occur when other water supply alternatives appear too costly and not environmentally efficient.

i. *California Water Code Requirements for Water Transfers*

There are several legal bases for the right to use water: Riparian rights,[119] appropriative water rights,[120] contractual water entitlement,[121] ground water supplies, water service from utilities, and adjudicated (decreed) water rights.[122]

These legal bases have different effects on the permit process for water transfers. No permit is required when a transfer is based on

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to use water belonging to another entity either by trading water for water or paying the costs of developing and delivering the water, usually at *utility* rates." *Id.*

113. A water sale is "[a]n arrangement whereby current users voluntarily change their water use so that others may purchase the water made available. Water marketing involves treating groundwater [sic] as a commodity and selling it as such." *Id.* at 2.

114. Water ranching involves "the purchase of agricultural land by urban interests to obtain control of surface and ground water rights that accompany the land." *Id.*

115. Water salvage is "[t]he practice of preventing water from flowing into saline sinks, where it would become economically less useful. Such salvaging makes additional water available for a more beneficial use." *Id.*

116. Water sharing is "[t]he sharing of water supplies and facilities by two or more persons or agencies in ways advantageous to both parties." *Id.*

117. *Id.*

118. *Id.*

119. "Riparian rights relate to the legal authority of property owners whose land fronts a river, stream, pond, lake or well-defined underground channel to divert water for their own use." *Id.*

120. An appropriated water right is:

> [T]he capture, impounding, or diversion of it from its natural course or channel and its actual application to some beneficial use private or personal to the appropriator, to the entire exclusion . . . of all other persons. To constitute a valid appropriation, there must be an intent to apply the water to some beneficial use existing at the time or contemplated in the future, a diversion from the natural channel by means of a ditch or canal, or some other open physical act of taking possession of the water, and an actual application of it within a reasonable time to some useful or beneficial purpose.

BLACK'S LAW DICTIONARY 102 (6th ed. 1990).

121. A contractual water entitlement is a contract for water rights. California Dep't. of Water Resources, *supra* note 18, at 6.

122. Transfers of water can be "pumped from an adjudicated (i.e. judicially designated) basin, or from a basin lying within a defined ground water management district . . . ." *Id.*

an exercise of a riparian right.[123] The SWRCB approves proposed transfers of appropriative rights based on the following criteria: (1) the proposed transfer must not increase the allotted amount of water (or create a new water right) as originally set in the license to appropriate; (2) the transfer must not interfere with another party's water rights; and (3) the transfer must not affect the environment in a "significantly adverse way."[124] A contractual water entitlement requires the wholesaler's approval. Transfers taken from ground water supplies require the approval from the local water master or water official; yet, if the ground water use is unregulated, then no assistance from these officials is available.[125] Finally, any adjudicated water right is transferable.[126]

ii. *How to Request a Water Transfer*

After a proposed water transfer is based on one of the six legal theories, there are four ways to request a voluntary transfer: Temporary Urgency Permit,[127] Temporary Urgency Change,[128] Temporary Change for Transfer,[129] and Long-term Transfer.[130] Although each request has different requirements, each is subject to the normal California Environmental Quality Act (hereinafter CEQA) process[131] except for the Temporary Change for Transfer.[132]

A Temporary Urgency Permit is usually issued during an emergency caused by prolonged drought conditions and is not considered a transfer unless the water supply sought is also in critical demand downstream.[133] If downstream users will be negatively affected, then an agreement must be reached between all affected

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123. *See infra* notes 200-03 and accompanying text.

124. California Dep't. of Water Resources, *supra* note 18, at 6.

125. *Id.*

126. *Id.*

127. CAL. WATER CODE § 1425 (West 1971 & Supp. 1993).

128. *Id.* § 1435.

129. *Id.* § 1725.

130. *Id.* § 1735.

131. California Dept. of Water Resources, *supra* note 18, at 8. The CEQA process entails completing an Environmental Impact Report [hereinafter EIR] *only if* "the cumulative impacts of successive transfers to and from the same sites were anticipated to be environmentally significant . . . ." *Id.* at 15. The EIR addresses the effects a water transfer will have on the environment and suggests mitigation measures to be taken into account in order to reduce the effects of the transfer. For an example of a program EIR, *see generally* AUTHORITY FOR ENVIRONMENTAL ANALYSIS OF WATER TRANSFERS, *supra* note 95, at 4-1 to 5-8.

132. CAL. WATER CODE § 1725 (West 1971 & Supp. 1993).

133. California Dep't. of Water Resources, *supra* note 18, at 7.

parties and compensation should be paid for lost supply.[134] This agreement, in effect, is a water transfer.[135] The Code requires: (1) urgent need; (2) no injury to vested rights; (3) no unreasonable impact on fish or wildlife; (4) use in public interest; and (5) the person or agency requesting a permit must show due diligence in seeking the permit.[136] The permit is subject to the normal CEQA process and the permit is good for 180 days subject to renewal.[137]

A Temporary Urgency Change is for a permittee who has "an urgent need to change a point of diversion, place of use, or purpose of use from that specified in the permit . . . ."[138] and is subject to the same requirements as the Temporary Urgency Permit which includes the normal CEQA process.[139]

A Temporary Change for Transfer is used for a temporary change in "the point of diversion, place of use, or purpose of use due to a transfer or exchange of water or water rights if the transfer would only involve the amount of water that would have been consumptively used or stored by the permittee or licensee in the absence of the proposed temporary change."[140] It is not subject to the CEQA process.[141] This permit has two requirements: first, that no injury is posed to vested rights; second, there must be no unreasonable impact on fish or wildlife.[142]

Finally, the Long-term Transfer is a transfer for a period over one year.[143] There are two requirements: "[N]o injury to vested

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134. *Id.*

135. *Id.*

136. *Id.* at 8.

137. *Id.*

138. CAL. WATER CODE § 1435 (West 1971 & Supp. 1993).

139. California Dep't. of Water Resources, *supra* note 18, at 8.

140. CAL. WATER CODE § 1725 (West 1971 & Supp. 1993).

> This stipulation has a direct bearing on how much water is transferable . . . because of potential impacts on established users of downstream return flows. Though sometimes difficult to quantify, water that had been previously consumptively used that becomes available for transfer through conservation or taking agricultural land out of production, for example, would not have any downstream impacts since it would not normally have been available to downstream users. However, water that is not consumptively used (such as agricultural return flows or water used for power generation) is usually returned to the stream and becomes available for further appropriation. If transferred during a period of the year that other unappropriated water is not available, it would impact downstream users.

California Dep't. of Water Resources, *supra* note 18, at 7-8.

141. California Dep't. of Water Resources, *supra* note 18, at 8.

142. *Id.*

143. CAL. WATER CODE § 1735 (West 1971 & Supp. 1993).

rights"[144] and "no unreasonable impact on fish or wildlife."[145] This permit is also subject to the normal CEQA process.[146]

III. THE PROBLEM

The controversy over the listing of the Delta smelt as a threatened species under the ESA[147] is a symptom of what is wrong with California water policy and procedure. The potential for a listing of any native California fish ignites ferocious competition among environmentalists, agricultural interests, and municipalities because it reduces water management flexibility and forces competition over scarce water resources.[148] This competition makes state agencies susceptible to political and economic pressures, undermining their efforts to carry out their public trust responsibilities.[149] Additionally, "divisive and bitter regional economic face-offs over decisions involving Delta Smelt, . . . and certain types of Salmon"[150] may "cause the destruction of entire local economies."[151] Part of the problem is that there are no established state policies to guide agencies which make water allocation decisions in such a turbulent political environment. Most water users in California, especially those who have been involved in the debate over the listing of the Delta smelt, will argue that a new attitude is needed among all water users in order to preserve aquatic resources in California *and to avoid the time and expense* involved in the battle to list, or not to list, a species as threatened or endangered.

Biologists believe that the dramatic rise in California's population, "climatic warming caused by human activity, and inappropriate resource stewardship"[152] have contributed to reduce smelt populations "to a point where recovery is increasingly difficult and extinction a possibility."[153] The Delta smelt is not the only species that is affected; in fact, biologists claim that at least eleven other fishes have also been dramatically affected by the same combination of human

144. *Id.*
145. California Dep't. of Water Resources, *supra* note 18, at 8.
146. California Dep't. of Water Resources, *supra* note 100, at 8.
147. Federal Endangered Species Act, 16 U.S.C. § 1532(20) (1992).
148. Moyle & Morford, *supra* note 54, at 2.
149. *Id.* at 5.
150. *Leading Environmental Attorney Predicts Pressure Will Mount for Revisions to Endangered Species Act*, PR Newswire, Dec. 29, 1992, available in LEXIS, Nexis Library, Wires File.
151. *Id.*
152. Moyle & Morford, *supra* note 54, at 2.
153. *Id.*

activity and poor resource management.[154]

The first problem is proving that any of these species have *in fact* declined to the point where a petition to list a threatened or endangered species is necessary. In the case of the Delta smelt, biologists hired by water agencies argue that the smelt population has tripled in the last four years.[155] However, the SWRCB found that smelt populations have declined.[156] Opponents of protection demand more study of the smelt's condition because they fear implementation of protection measures would disrupt water supplies and damage agriculture.[157] There also remains the possibility that the smelt may be so far gone that protection would be unavailing.[158] Whether a species has declined to the point where a listing is necessary—opponents to a listing will rarely concede that a species has so drastically declined—will always cause contention, igniting political battles and incurring great expense throughout the process of making this primary determination.

The second problem involves the repercussions felt after a species is listed or not listed. The SWRCB found:

> Approximately six million acre-feet (MAF) of California's developed water is used to satisfy the needs of residential, commercial, and industrial water users. On average, approximately 40 percent of this urban use is provided by exports from the Delta. Population growth and recent decreases in urban supplies from the Colorado River and Mono Basin will increase the demand for Delta exports for urban uses in the future.[159]

Opponents of a Delta smelt listing claim up to 46,000 jobs will be lost and California may suffer $12 billion in economic losses.[160] This estimate is based on the fact that less water would be diverted from the Sacramento-San Joaquin River Delta,[161] which will discourage industry from locating in California[162] and will put "millions of dollars of agriculture at risk."[163] On the other hand, if the smelt is in fact threatened but is not listed, then "massive pumps for the state and federal water projects [will continue to] suck out fresh water for

154. *Id.; see supra* note 27 and accompanying text.
155. Mayer, *supra* note 50, at B1.
156. SWRCB, *supra* note 5, at 29.
157. McCoy, *supra* note 4, at B4.
158. *Id.*
159. SWRCB, *supra* note 5, at 9.
160. Mayer, *supra* note 50, at B1.
161. *Id.*
162. *Id.*
163. Pfaff, *supra* note 10, at 1.

southern farms and cities,"[164] destroying smelt and their habitat which may lead to the extinction of the Delta smelt.[165]

One of the alleged contributions to the demise of the Delta smelt are the massive pumps which suck water, and schools of fish, out of the Delta to send water to irrigate farms and provide drinking water in southern California.[166] The Delta's pumps are part of an elaborate system, including dams and tunnels, which comprise the Central Valley Project, the operation of which is blamed by environmentalists for ravaging the Delta smelt populations.[167] In fact, "water diversions by the project's dams, canals and pumps . . . are blamed for the sharp decline of some fish species in San Francisco Bay and rivers that feed it."[168]

One of the overall concerns with the plight of the Delta smelt lies with the future of the ESA.[169] Environmentalists are accused of using the act to "restrain growth"[170] and business interests are said to be equally guilty in their "lobbying blitz"[171] to oppose wildlife preservation. Thus, the Delta smelt controversy is more than just a debate over the finger-length fish, it may be an attack on the ESA.[172] This little fish could put the future of the nation's wildlife in serious trouble. If the water industry's lobbying efforts pay off, then the ESA may undergo such a radical change that it may no longer serve its original purposes.[173] But, the smelt situation may be a catalyst of positive change. The ESA is "designed to be reactive—responding only when a species is threatened—and is therefore behind the curve."[174] A leading environmental attorney suggests that "we ought to have . . . a planned habitat protection program that insures greater protection for more species"[175] to avoid "pitched battles that are economically and politically counter-productive."[176]

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164. Mayer, *supra* note 50, at B1.

165. *See supra* notes 23-28 and accompanying text.

166. McCoy, *supra* note 70, at A2.

167. Robinson, *supra* note 70, at A2.

168. Thurm, *supra* note 34, at A8.

169. McCoy, *supra* note 70, at A2.

170. *Id.*

171. *Id.*

172. *Id.*

173. The purpose behind the Endangered Species Act of 1973 is to "provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved, [and] to provide a program for the conservation of such endangered species and threatened species." Endangered Species Act, 16 U.S.C. § 1531(b) (1992).

174. *Leading Environmental Attorney Predicts Pressure Will Mount for Revisions to Endangered Species Act, supra* note 150.

175. *Id.*

176. *Id.*

Unfortunately, "political science, and not biological science, is determining the fate of these species."[177] This frustrates many environmentalists who feel political and economic considerations should not be permitted during the listing process under the ESA.[178] And, environmentalists and water industry proponents would surely agree that clear, concise, and coordinated agency planning, based on an established state policy to consider the needs of native California fishes affected by state water projects, would help prevent controversies like the one over the Delta smelt. In light of the fact that other California fishes have the potential to make as big a splash as the smelt, what is needed is an insurance policy against the ESA—the ESA should only be used as a last resort to save a species.

IV. ANALYSIS

A. *The Decline of the Delta Smelt*

1. *The Debate*

Since early 1985, smelt have been disappearing from the Sacramento-San Joaquin River Delta.[179] Biologists have attributed the demise of the smelt to a number of causes: "[I]ncreased diversion of water from the estuary, especially during their spawning season, combined with a series of drought years."[180] The massive pumps that assist in diverting water to southern California are placed where the fresh water and salt water streams converge, trapping smelt and often killing the bite-sized fish.[181] During drought years the pumping accelerates, resulting in a drop in fresh Delta water.[182] Consequently, an abundance of salt water enters the estuaries, killing the fish, sometimes causing the San Joaquin River to flow backward, possibly disorienting the smelt and disrupting their breeding habits.[183] If the smelt is granted protection, then the pumps will be the environmentalists' first target, which could mean that the pumps will not be able to operate at full capacity.[184] In order to provide smelt with more fresh water, the pumps will be slowed down to cut exports of fresh water from the Sacramento-San Joaquin River

177. McCoy, *supra* note 13, at A2.
178. Federal Endangered Species Act 16 U.S.C. §§ 1531-1543.
179. Moyle & Murford, *supra* note 54, at 13.
180. *Id.*
181. McCoy, *supra* note 4, at B4.
182. *Id.*
183. *Id.*
184. Mayer, *supra* note 50, at B1.

Delta.[185] With more fresh water being pumped into the Delta, severe water shortages may occur that may discourage new industries from locating in California.[186]

Biologists for the California Water Resources Association contend that the smelt suffered a decline in population, but also acknowledge Department of Fish and Game data that suggests the smelt population may be three times as large as the environmentalists estimate.[187] Thus, there is a clear debate over the cause of the decline of the Delta smelt and whether smelt populations are increasing rather than decreasing. But, regardless of whether the species is starting to recover, or is threatened with extinction, effective agency planning is needed, including preventative measures to protect fish. If California had a policy in place for every method of allocating water, an ESA listing may never need to be considered, and the SWRCB may not be left in a political quandary, fighting to satisfy both environmental and agricultural interest groups. The debate over the Delta smelt is clearly political and economic; thus, the California legislature should take these interests into account when structuring future plans for California water management.

B. *California Water Management and Policy*

The six nonstructural water management methods—water conservation, water reclamation, ground water banking, increase risk acceptance, interconnection, and water transfers—used by the DWR[188] require coordinated planning with the SWRCB.[189] Some of these methods take more planning than others, and some have a greater impact on the environment within the water system. For instance, water conservation, which is using less water for the same activities,[190] does not negatively or positively affect the habitat of the smelt because the same amount of water is being taken from the estuaries. A water transfer, however, can have a great impact on fisheries because the intricate decision-making process involved in approving a water transfer may not adequately consider the needs of native California fishes. This is illustrated by the fact that water

185. Diringer, *supra* note 46, at A1. See SWRCB, *supra* note 5, at 1, for the proposition that pump operations might be adjusted to avoid killing Delta smelt.

186. Mayer, *supra* note 50, at B1.

187. *Id.*

188. *See* California Dep't of Water Resources, *supra* note 18, at 1; *supra* text accompanying 106-11.

189. *See supra* part II.B-C.

190. California Dep't. of Water Resources, *supra* note 18, at 1.

was, and still is, often diverted away from smelt habitat, even though there continues to be sufficient evidence that smelt populations are in severe decline.[191] Water transfers are the focus of this analysis because they are a nonstructural method of water allocation that does not have an overall policy designed to guide the entire process of transferring water, a process which directly affects fish habitat.[192]

Poor stewardship of water transfers contributes to future problems involving species like the Delta smelt. If state agencies were bound by a cohesive state policy to make protection of native California fishes a primary consideration in all water transfer decisions, then efficient planning could serve as an insurance policy to forestall, and perhaps avoid, submission of petitions to list all threatened or endangered anadromous and estuary dependent fishes in California.[193]

C. *Water Transfers*

Drought conditions often require the transfer of water from areas of surplus to areas of need. The legal mechanism used for such a transaction is called a water transfer, or more popularly, water marketing.[194] The rationale behind water transfers is simple: "[A]s the cost of developing new water supplies climbs, it is sometimes more sensible, economically and environmentally, to buy or borrow available water than to develop new supplies."[195] Viability of water transfers depends on water supplies, the ability and convenience of transferring it, and the potential benefits and adverse effects to the buyer, seller, and affected third parties.[196] Third parties include downstream users, local communities, and fish and wildlife interests.[197]

There are many incentives to partake in a water transfer; namely, receivers can avoid higher water costs and suppliers can realize substantial profits.[198] In addition, state law encourages water transfers as a method to cope with drought and environmental concerns, and as a way to avoid the escalating costs of developing large-scale water projects "where it is consistent with the public welfare of

191. *See supra* text accompanying notes 59-60.
192. *See* SWRCB, *supra* note 5, at 29-45.
193. Moyle & Morford, *supra* note 54, at 2.
194. California Dep't. of Water Resources, *supra* note 18, at 1.
195. *Id.*
196. *Id.* at 2.
197. *Id.*
198. *Id.* at 3.

the place of export and place of import."[199]

1. *Analysis of the Restrictions Placed on Water Transfers*

No permit is required when a transfer is based on an exercise of a riparian right since there already exists the legal authority to take the water.[200] The only restrictions are that "[w]ater taken under a riparian right must result from natural flows, cannot be stored for more than 30 days, and must be used to benefit the riparian land within the watershed of the source."[201] When water is scarce, riparian users share the available water, and since riparian water cannot be transferred apart from the land,[202] water transfers of this type do not take water away from the habitat of fish. Fisheries are not affected by most riparian water transfers, however, because most water transfers are not based on a riparian water right theory.[203]

Water transfers based on appropriative rights "initiated after 1914 require a permit and are not tied to a landowner's direct access to a water supply. Holders of appropriative rights are entitled to set amounts of water from specific sources for limited beneficial uses at exact locations during specified time periods."[204] Since appropriative rights can be lost if not used,[205] there is an incentive to transfer or sell these rights.

Although a permittee cannot take more water than is originally set by the appropriative permit, water can be exported to any location (unlike a transfer based on a riparian right).[206] It is likely that the environment surrounding the original water source may be affected by the water transfer. Whether that effect is adverse or not must be determined by the SWRCB, but there is no policy specifically promoting the environmental interest of fisheries before a transfer is approved.

The SWRCB plays no role in approving applications for contractual water entitlements since the "quantities, points of use, types of applications, and other factors generally do not differ from the conditions specified in the wholesaler's permits or licenses."[207] Thus,

199. *Id.* at 4.
200. *Id.* at 6.
201. *Id.*
202. *Id.*
203. *Id.*
204. *Id.*
205. *Id.*
206. *Id.*
207. *Id.*

another entity is involved in the process, the wholesaler, who may, or may not, have a policy which promotes the environment or the interests of fisheries when issuing the original entitlement. If the transfer involves a water user located outside the original service area, the only concern of the wholesaler is to assist with the contractual modifications needed to create a new water right, enabling the new permittee to take the water to a new location.

As with riparian rights and contractual water entitlements, there exists no policy which gives primary consideration to California fish while determining the steps involved in transferring ground water. Although ground water is not directly a part of a river or spring, it is an integral part of the water system since it can feed a stream or be a source of storage during wet years. If there is a drought, more water will be sought from ground water sources, which leaves less for stream flow and fish habitat.[208]

Water service from utilities is reserved for other agency and municipality needs. Water users do not have a right to water supplies belonging to water districts, and water districts differ extensively in the policies they promote; in fact, many are battling against the listing of the Delta smelt.[209] The Metropolitan Water District of Southern California, an association representing a large number of water agencies, is actively urging the United States Fish and Wildlife Service to withdraw the petition to list the Delta smelt as a threatened or endangered species.[210]

A permit to transfer a decreed right or adjudicated water right may require approval by the water master, who administers the adjudication, and the SWRCB.[211]

These six legal water right theories have a significant impact on the procedures affecting, and the policies guiding, state water transfers. For each type of legal authority there are different agencies involved in the decision making process; all the agencies may promote the policies of their choice if they encourage and assist in voluntary transfers.[212] Although SWRCB orders granting water transfers usually have conditions imposed for the maintenance of fish habitat, there is no clear, concise policy promoting the interests of native California fishes to guide agencies through the water transfer process.

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208. Henry Schacht, *How Wells Help State Fight the Drought*, SAN FRANCISCO CHRON., Oct. 5, 1991, at B4.

209. Mayer, *supra* note 50, at B1.

210. *Id.*

211. California Dep't. of Water Resources, *supra* note 18, at 6.

212. CAL. WATER CODE §§ 109, 475 (West 1971 & Supp. 1993).

2. *The Policies Supporting Requests for Water Transfers*

Only requests for Temporary Urgency Permits,[213] Temporary Urgency Changes,[214] and the Long-term Transfers[215] are subject to the CEQA process that requires state and local agencies to perform an environmental assessment, which may or may not include an Environmental Impact Report, before carrying out a project to transfer water that may significantly affect the environment.[216] Temporary Changes for Transfer requests are exempt from the CEQA process.[217] The key to initiating a CEQA review is that the transfer be regarded as a project.[218] A few water transfers might be subject to other environmental review requirements found under the National Environmental Policy Act,[219] the ESA and CESA, Fish and Game Code,[220] and section 404 of the Clean Water Act.[221]

For all state water transfers, there are two policies set by the California Legislature to encourage voluntary transfers of water: The transfer must be consistent with the public welfare,[222] and it must be in the public interest to require coordinated assistance from state agencies.[223] These two Water Code sections are the only estab-

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213. *Id.* § 1425; *see supra* text accompanying notes 133-37.

214. *Id.* § 1435; *see supra* text accompanying notes 138-39.

215. *Id.* § 1735; *see supra* text accompanying 143-46.

216. AUTHORITY FOR ENVIRONMENTAL ANALYSIS OF TRANSFERS, *supra* note 95, at 2-7.

217. *See supra* text accompanying 140-42.

218. California Dep't. of Water Resources, *supra* note 18, at 8.

219. National Environmental Policy Act, 42 U.S.C.A. §§ 4321-4370(c) (West Supp. 1992).

220. FISH & GAME CODE §§ 1601, 2800-2840 (West 1972 & 1993 Supp).

221. Clean Water Act, 33 U.S.C.A. §§ 1251-1376 (West 1992).

222. CAL. WATER CODE § 109 (West 1971 & Supp. 1993). Section 109 states:

> (a) The Legislature hereby finds and declares that the growing water needs of the state require the use of water in an efficient manner and that the efficient use of water requires certainty in the definition of property rights to the use of water and transferability of such rights. It is hereby declared to be the established policy of this state to facilitate the voluntary transfer of water and water rights where consistent with the public welfare of the place of export and the place of import.
>
> (b) The Legislature hereby directs the Dep't. of Water Resources, the State Water Resources Control Board, and all other appropriate state agencies to encourage voluntary transfers of water and water rights, including, but not limited to, providing technical assistance to persons to identify and implement water conservation measures which will make additional water available for transfer.

Id.

223. CAL. WATER CODE § 475 (West 1991 & Supp. 1993). Section 475 states:

> The Legislature hereby finds and declares that voluntary transfers between water users can result in a more efficient use of water, benefiting both the buyer and the seller. The Legislature further finds and declares that transfers of sur-

lished state policies which guide agencies involved in approving these permit requests for water transfers. Since neither of these two policies directly address the needs of native California fishes, it is relatively easy to get a permit approved as long as the applicant meets the guidelines, and satisfies any additional federal requirements under the statute that may be imposed if the transfer involves a federal project. This comment will next discuss what the current standards are for a successful transfer, the role of state agencies in approving water transfers, and how the two policies set by the California Water Code are insufficient to guide state agencies when making crucial water allocation decisions.

3. *Successful Transfers*

In order to get a permit for one of the four types of transfers, several hurdles must be cleared: "A successful transfer will optimally have no significant adverse impacts on the environment, economy, or other users of the source of supply from the water being transferred, or it will include provisions to offset adverse conditions that may arise."[224]

Each state agency plays a different role in the water transfer process. Moreover, each agency ensures that the water transfers will have "no adverse environmental impact" in different ways. Therein lies the crux of the approval process and the future fate of native California fishes.

4. *The Role of California Agencies in Transfer Activities*

The SWRCB advises potential transferors of the need to plan early for potential transfers to allow time for the petition process.[225] This process is an intricate review involving the study of the various effects that the proposed transfer could have on the environment and the economy, coordination of other agency review, and determination

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> plus water on an intermittent basis can help alleviate water shortages, save capital outlay development costs, and conserve water and energy. The Legislature further finds and declares that it is in the public interest to conserve all available water resources, and that this interest requires the coordinated assistance of state agencies for voluntary water transfers to allow more intensive use of developed water resources in a manner that fully protects the interests of other entities which have rights to, or rely on, the water covered by a proposed transfer.

Id.

224. California Dep't. of Water Resources, *supra* note 18, at 7.

225. Diaz, supra note 101, at 1.

of water rights.[226] The DWR also has an active role in water transfers involving the State Water Project reservoirs, pumping plants, aqueducts, and canals.[227]

The Costa-Isenberg Water Transfer Act of 1986[228] requires the DWR to establish and manage an ongoing program for the voluntary transfer of water by working as a water wholesaler,[229] water conveyor,[230] and water transfer facilitator.[231] Under its role as water transfer facilitator, the DWR must evaluate each transfer proposal before granting or denying approval.[232]

In addition to the DWR and the SWRCB, there are three other state agencies actively involved in water transfers in California: The Department of Health Services, the Colorado River Board, and the Department of Fish and Game (hereinafter DFG).[233] The Department of Health Services is responsible for safeguarding "the purity of California's public water supply systems,"[234] and is not responsible for conserving, protecting, and enhancing fish and wildlife resources and habitat.[235] The Colorado River Board protects California's water rights and power resources which flow from the Colorado River.[236] Transfers involving Colorado River water "must conform to the *law of the river*—a catch phrase for the complex set of interstate laws, compacts, court decisions, contracts, administrative regulations, and treaties developed over the past 60 years to allocate Colorado River water."[237] The three agencies which have the power to disprove a water transfer if it adversely affects fish and wildlife resources are the DWR, the SWRCB, and the DFG. These three agencies play the most significant role in determining whether a permit request has met all the environmental criteria.[238]

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226. California Dep't. of Water Resources, *supra* note 18, at 4-5.

227. *Id.*

228. CAL. WATER CODE § 480 (West 1971 & Supp. 1993).

229. The California Department of Water Resources has contracts with 30 water agencies to "deliver more than 4.2 million acre-feet of water annually throughout California . . . ." California Dep't. of Water Resources, *supra* note 18, at 4.

230. The DWR conveys "water from sources of supply to areas of need through the SWP and interconnection with other water delivery systems." *Id.*

231. *Id.* at 5.

232. *Id.* at 4.

233. *Id.* at 11.

234. *Id.*

235. *Id.*

236. *Id.*

237. *Id.*

238. The United States Bureau of Reclamation, the United States Army Corps of Engineers, and the United States Fish and Wildlife Service also play significant roles in some California water transfers. California Dep't. of Water Resources, *supra* note 100, at 12-13; *cf.*

The leading agency, DWR, has the ultimate power to approve or deny a request for a water transfer. Overall, DWR has several primary objectives:

> [T]o protect, conserve and develop the state's water resources, assure public safety and prevent property damage from water related causes, and furnish technical services . . . . The basic goal is to ensure that California's needs for water supplies, water-related recreation, fish and wildlife enhancement, hydroelectric power, prevention of damage and loss of life from floods and dam failures, and water-related environmental enhancement, are effectively and economically fulfilled, and to ensure that the manner in which these needs are fulfilled is consistent with public desires and attitudes concerning environmental and social considerations.[239]

It can be implied by the agency's statement of purpose that "fish and wildlife enhancement" means that DWR does give thought to the needs of fisheries in its overall management of water. But, DWR has a conflict in interest—it must deliver water to meet requirements under water contracts while still pursuing fishery protection. This policy is not specific enough to meet the needs of fisheries; there should be an express state policy that requires protection of native fishes so that DWR must consider the needs of the impacted fish at the outset of the water transfer process. A policy of this sort forces the agencies to consider the needs of the impacted fish from the outset of the water transfer process, before water is taken away from their habitat. Planning early to maintain fish populations helps avoid future problems with threatened or endangered species. The time and expense of engaging in the listing process should be avoided through the effective implementation of a policy which encourages fish-friendly water transfers.

The second of these three agencies, the SWRCB, provides for the orderly and efficient administration of California water resources and administers water rights and quality functions "by issuing water rights permits and enforcing pollution control standards that safeguard the state's surface and ground waters."[240] The Board must ensure that the public interest is best served, that existing water

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AUTHORITY FOR ENVIRONMENTAL ANALYSIS OF WATER TRANSFERS, *supra* note 97, at 2-6 (lists the Environmental Protection Agency, the United States Fish and Wildlife Service, and the Federal Energy Regulatory Commission as other federal agencies which have a role in reviewing or approving water transfers).

239. HENKE, *supra* note 93, at 313.

240. California Dep't. of Water Resources, *supra* note 18, at 10.

rights are not compromised by a water transfer, and that the environment is protected.[241] The Board issues permits or licenses to appropriate water, and frequently amends those permits and licenses when a water transfer involves a change in place of use, type of use, or point of diversion.[242] Just as the DWR does not have an express policy to consider the needs of California native fishes throughout the transfer process, the SWRCB follows a broad policy to ensure the environment is protected. By adopting a more specific policy to protect native fishes, the Legislature will help the SWRCB to focus its attention on the needs of the fish which will be impacted by the water transfer. If the SWRCB follows fish-specific policies, it may avoid the political and economic pressures that result from a proposal to list a fish as endangered or threatened, as evidenced by the controversy over the Delta smelt.

The DFG's overall policy is to protect, conserve, and develop the state's water resources, assure public safety and prevent property damage from water related causes, and furnish technical services as the need arises. The basic goal is to ensure that California's needs for water supplies, water-related recreation, fish and wildlife enhancement, hydroelectric power, prevention of damage and loss of life from floods and dam failures, and water-related environmental enhancement, are effectively and economically fulfilled; and to ensure that the manner in which these needs are fulfilled is consistent with public desires and attitudes concerning environmental and social considerations.[243]

The primary interest of the DFG regarding water transfers is "to maintain sufficient instream flows and native vegetation to ensure protection of fish and wildlife resources and their habitat."[244] The DFG's primary role in the water transfer approval process is "to evaluate streams, riparian vegetation, wetlands, and estuaries to determine how much water is needed to sustain fish and wildlife."[245] If a transfer is found by DFG to have an adverse impact on fish and wildlife, the department protests the transfer application, and if directed by the SWRCB, works with the parties involved to mitigate the harm identified by the DFG.

Of the three agencies, the DFG has the most focused policy to protect the interest of fish and wildlife. But, a more specific state

241. *Id.*
242. *Id.*
243. HENKE, *supra* note 93, at 312.
244. California Dep't. of Water Resources, *supra* note 18, at 11.
245. *Id.*

policy pinpointing native California fishes as needing consideration in the water transfer process will help the DFG to coordinate its efforts with the other two agencies. It will allow DFG officials to justify the measures required to mitigate adverse impacts that may result from a transfer.

5. *The Lack of a Cohesive State Policy*

As reflected by the statements of each agency's purpose and policy regarding water transfers, there is no cohesive policy which binds the agencies together in their mission to review and approve water transfers, and, at the same time, protect the native fishes and the overall biodiversity of the habitat affected by the water transfer. Agricultural interest groups can point to the California Legislature's declaration, codified in section 109 of the California Water Code, which declares that "it is the established policy of the state to facilitate voluntary water transfers,"[246] and that the DWR and the SWRCB have been directed to encourage voluntary water transfers.[247] Nevertheless, water law scholars, legislators, and fishery biologists often remark that there exists:

> [T]he need for an overall state policy which can prevent conflicting positions by different divisions of the state government. [For example] The state is one entity and if one branch of state government has approved contracts made by irrigation districts for purchase of project water, the state should not later take a conflicting position through the action of some of its other departments.[248]

The SWRCB has addressed part of the problem of conflicting positions regarding whether or not to approve temporary water transfers, involving export from the Delta in times of drought, by issuing SWRCB Order WR 89-20. Order WR 89-90 states:

> [W]hile this individual project may not have significant environmental effects, at some point we believe that water transfers resulting in increased Delta exports could have significant adverse environmental effects. Therefore, *in the future, the Board will not approve projects which involve increased Delta exports in the absence of an adequate environmental assessment which addresses potential fishery impacts and other environmental effects of the proposed project.* In the case of temporary urgency

246. CAL. WATER CODE § 109 (West 1971 & Supp. 1993).
247. *Id.* § 475.
248. Harding, *supra* note 79, at 162.

> changes or temporary permits, the required environmental assessment must comply with CEQA.[249]

This directive does not require any additional environmental assessment other than the normal CEQA process. Its only effect is to call attention to the fact that requests for transfers have increased during drought years, and warns that petitioners must adequately comply with established CEQA requirements as the SWRCB will not review a request that does not meet these requirements. This policy merely warns future applicants to not waste SWRCB time with frivolous applications that negatively impact fisheries; it does not require SWRCB to give priority to fish habitat when approving water transfers.

Fishery biologists argue that state agencies should be required to follow a state policy that emphasizes the protection of native fishes as a major consideration in all water allocation decisions.[250] This would be a tough requirement, especially since agencies are mandated by the California Water Code to facilitate and encourage voluntary water transfers. The two goals are diametrically opposed because fish need the fresh water that the exports are taking away. Recent surveys on SWRCB water transfer proposals revealed that, "[c]oncerns about Delta impacts, including fishery impacts" were frequently raised.[251] Since 1989, approximately 12 requests out of 51 water transfer proposals were singled out as having significant impacts on California fisheries and surrounding habitat.[252] An example is a transfer requested in 1991 from La Hacienda Ranch (transferor) to the Kern County Water Agency, for 1,000 acre feet of water. The concern raised by the DWR was "[d]eficient analysis of impacts on fish."[253] This was a common concern raised in all twelve requests, clearly showing a need to consider the requirements of fish at the beginning of the permitting process. The time and expense involved in an agency backtracking to mitigate adverse effects discovered at the last minute can be mitigated with effective planning.

It is apparent that there are many water transfer proposals which do not adequately take into account the needs of native California fishes. What is needed is an overall state policy calling for the

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249. AUTHORITY FOR ENVIRONMENTAL ANALYSIS OF WATER TRANSFERS, *supra* note 95, at 1-3.

250. Moyle & Morford, *supra* note 54, at 14.

251. AUTHORITY FOR ENVIRONMENTAL ANALYSIS OF WATER TRANSFERS, *supra* note 95, at 3-1 to 3-7.

252. *Id.* at 3-2 to 3-7.

253. *Id.* at 3-4 to 3-7.

protection of native fishes as the primary consideration in all water transfer decisions made by state agencies. If such a policy were adopted, then all of the agencies involved in the review process will not present conflicting positions on whether or not to approve a water transfer. Proposals will adequately address the impact on fish and their habitat at the outset of the permitting process.

IV. PROPOSAL

A. *Using Policy to Avoid a Listing Under the ESA*

The ESA reflects the "strong desire of the American people to protect their wild heritage;"[254] yet, there are several disadvantages to listing a species. The "[l]isting of a species is an admission of failure of state and federal agencies to manage a public trust resource properly. It means drastic, and usually expensive action"[255] to protect a species: voluntary and cooperative arrangements, such as pumping more fresh water back into the Delta for the smelt, or more drastic measures such as closing off large pumping systems to stop exports from the Delta.[256] As evidenced by the controversy over the potential listing of the Delta smelt as a threatened species, "the listing process also increases friction among agencies, environmental groups, and private interests."[257] This friction is especially dangerous as it has resulted in an onslaught of criticism against the ESA.

On the other hand, if a species is not listed, then the risk of the disappearance of species like the Delta smelt is greatly increased. The projected demise of the Delta smelt and other native California fishes means that the state fish population will decline, hurting the economy which relies on commercial and sport fishing activities.[258] Protecting a species will also help stop the decline of their ecosystems

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254. Moyle & Morford, *supra* note 54, at 5.

255. *Id.*

256. *Id.*

> Listing a species may force agencies involved in their management to take short-term measures to protect it that may harm other species not yet listed or to divert money from management activities that help to protect entire systems rather than individual species. This was dramatically demonstrated by actions taken to protect the winter run chinook salmon. The Sacramento River fishery for all salmon was shut down while the winter run fish were present and water management agencies mandated to release water for winter run chinook have used this as an excuse to release less water for other species, including spring and fall run chinook.

Id.

257. *Id.* at 6.

258. *Id.* at 8.

which can directly affect the health of humans. It will ensure that California will not lose a "reservoir of . . . valuable genetic information"[259] and that people will be able to enjoy the rich diversity of California wildlife.[260] Listing can be avoided if agencies like the DWR, the SWRCB, and DFG make protection of native Californian fishes a high priority when reviewing and approving applications for water transfers. "Ideally, the recovery efforts for these species should take place in a cooperative atmosphere . . . without having to go through a bureaucratic 'de-listing' process."[261]

Finally, avoiding the listing process will save money: "Too often, the time, energies, and money of groups involved in endangered species issues is (sic) dissipated in protracted litigation, resources that would often be better used in bringing about a recovery of a species directly."[262]

B. *A Proposal to Amend Water Code Sections 109 and 475*

Making the determination that a fish is, in fact, threatened or endangered for the purposes of listing under the ESA[263] is too controversial: it causes friction among agencies and business factions, and it is an economically and politically expensive process. To avoid the repercussions of a listing, and a de-listing if the species recovers, we need to assume all of California's native fish are at least potentially threatened, and thus place an emphasis on appropriate planning based at the beginning of the transfer review process. A cohesive state policy will help avoid the controversy over whether or not to list a species. If there were an established state policy to consider the needs of native California fishes when promulgating water transfer applications, water transfers reviewed by the DWR, the SWRCB, and the DFG would begin with the primary objective of preventing the further demise of California native fish.

Two sections of the California Water Code can be amended to establish an overall state policy for California water marketing. The policy would require the protection of native fishes to be a crucial consideration in all water transfer decisions made by state agencies.[264] Section 109 should be amended to include the following italicized language:

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259. *Id.*
260. Moyle, *supra* note 1, at 8.
261. Moyle & Morford, *supra* note 54, at 6.
262. *Id.* at 5.
263. Federal Endangered Species Act, 16 U.S.C. §§ 1531-1543 (1992).
264. Moyle & Morford, supra note 54, at 2.

(a) The Legislature hereby finds and declares that *California native fishes are in danger of severe decline in that their habitat depends on fresh water supplies* and that the growing water needs of the state require the use of water in an efficient *and environmentally sensitive* manner and that the efficient use of water requires certainty in the definition of property rights to the use of water and transferability of such rights. It is hereby declared to be the established policy of this state to *require that protection of all California native fishes be a primary consideration in all voluntary transfers of water and* facilitate the voluntary transfer of water and water rights where consistent with *including the needs of native fishes and* the public welfare of the place of export and the place of import.

(b) The Legislature hereby directs the Department of Water Resources, the State Water Resources Control Board, and all other appropriate state agencies to encourage voluntary transfers of water and water rights *so long as the needs of California native fishes are considered by the applicant and approving agency*, including, but not limited to, providing technical assistance to persons to identify and implement *mitigation plans for the protection of fishes, and* providing technical assistance to persons to identify and implement water conservation measures which will make additional water available for transfer.[265]

In addition, California Water Code Section 475 should be amended to include the following underlined language:

The Legislature hereby finds and declares that voluntary transfers between water users can result in a more efficient use of water, benefiting both the buyer and the seller.

The Legislature further finds and declares that transfers of surplus water on an intermittent basis can help alleviate water shortages, save capital outlay development costs, and conserve water and energy.

The Legislature further finds and declares that it is in the public interest to make protection of native fishes a primary consideration in all water transfer decisions made by state agencies.

The Legislature further finds and declares that it is in the public interest to conserve all available water resources, and that this interest requires the coordinated assistance of state agencies for voluntary water transfers to allow more intensive use of developed water resources in a manner that fully protects

265. CAL. WATER CODE § 109 (West 1971 & Supp. 1993).

> the interests of other entities which have rights to, or rely on, the water covered by a proposed transfer.[266]

These two amendments would establish a state policy that will aid the DWR, the SWRCB, and the DFG in their review of requests for water transfers. These two policies will supplement the CEQA process by forcing the agencies and the applicants to consider the needs of fisheries throughout the planning process. Water transfers could no longer be made without regard for the needs of the fish. This proposal means that a request for a water transfer may be denied if it will harm the ability of native California fish to survive. If the needs of the affected native fishes are addressed at the outset, then water can be allocated in an environmentally sensitive and economically efficient manner, and the need to list a species may never arise. Effective policy is usually the best insurance plan for supporting a state water system that is in danger of running dry.

V. CONCLUSION

Listing the Delta smelt as an endangered or threatened species has the potential to radically change the way Californians receive and use water. "If you think of our water system as a wheel and the Delta as the hub . . . then what you've got now is a species [smelt] that can knock out a lot of the spokes."[267] This is why the debate over whether to list the smelt as a threatened species has caused great political uproar, but the sparring match over the fate of the smelt has caused little systematic change to prevent future controversies like this from occurring. California water policy needs to change, but that does not mean imposing radical and expensive structural changes. Amending California Water Code sections 109 and 475 to include a state policy for the protection of native Californian fishes represents an inexpensive and intelligent partial solution to a potentially explosive situation. With an overall state policy to protect native California fishes, the agencies who approve water transfers will take the needs of fish into account when reviewing water transfer applications. They will encourage voluntary water transfers but will require applicants to submit more extensive environmental impact statements with sections specifically addressing the transfer's impact on fish populations. An established state policy will help avoid the

266. *Id.* § 475.

267. Robinson, *supra* note 70, at 4A.

political upheaval, time, and expense of a listing process and will take pressure off the Federal Endangered Species Act.

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